

Development of Model Learning Character Building Based e-comic in The Elementary School

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Abstract

This research is motivated by the lack of interest and the interest of students towards mathematics during the learning process and the lack of investment in the character of the learning process in primary schools, especially in the textbook. This study aims to develop a learning model of education through the medium of e-learning in the form of comic medium, resulting in a viable learning medium and effectively used during the learning takes place, as well as character education learning model suitable primary school children. Type of research is research Research and Development. This research was conducted in two phases. The first phase to generate an e-Comik attractive and increase its motivation and the second phase to test the effectiveness of the product through test trials with experimental design Posttest-Only Control Design. Before tested in the field, the media e-comic-based character education is first tested the validation by experts and the media matter experts then performed students in field trials. In Average - The average results of the validation matter experts and the media more than 90% with both criteria, then continued validation of a questionnaire respondents kontruks students. So the media and learning model is valid for a piloted.

Keywords: Model Development, e-Comic Media, Character Education

1. Introduction

Deviant actions undertaken urged students to make character education to be applied at various levels of schooling. Foundation of strong character, of course, will also make the students able to compete in the international arena in the future. Indonesian education faces smeared with news slant. Call it began action brawl, bullying, drug and alcohol abuse, free sex among students that leads to abortion, and so on. However, not a few Indonesian students who managed to carve achievements in various fields and is recognized worldwide. Facts show, it's time again strengthened through character education in school education. The government has initiated the implementation of character education at all levels of education that began in elementary school. National Education Minister said, character education in elementary schools received a larger portion than the other levels. It is to be more easily taught and embedded in the soul of the boy child to adulthood. Because if it is not established early on, it will be difficult to change the character of a person in the future.

Based on the results of a preliminary analysis of observational studies to students in Pedurungan elementary schools 01 and 02 Semarang as a sample through a structured interview which convey some of the questions in written form through a questionnaire, they responded that the learning model of character education has not reached 50% and 90 integrated in the learning % of teachers and students use worksheets and textbooks as a learning medium and very rarely use other interactive media. The downside of worksheet and textbooks covering looks less attractive the attention of students, lack of

implementation of character education, which explains the lack of picture material, material explanations sometimes are lacking and concise, the lack of software applications in each chapter and the material described worksheet too limited.

Based on the field observations, the application needs to be tested interactive media aided character education such as e-comics, this is because the E-Comic is a visual-based online media that provides a comprehensive explanation of the information and quickly understood and elementary school students understand the appropriate level of student thinking. E-Comic presenting the material associated with the national character, accompanied by pictures, video, instrumental music, illustrations, photographs, charts, and graphs. Starting from here, learning model character education through the medium of e-comic can be combined with the attractive, making it easier for elementary students in the learning process. With the aim of this study as follows: (1) Ability to develop a prototype model of teaching character education assisted valid e-comic in elementary schools. (2) To determine the effectiveness in learning model of education through e-comic character in elementary schools.

2. RESEARCH METHOD

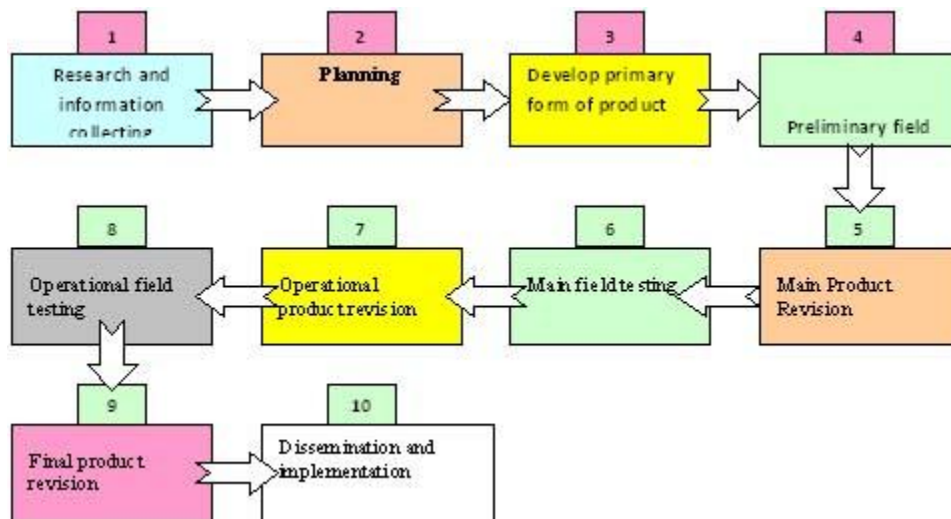
A. Approach and Type Research

This study aims to develop a learning model of education through e-comic character in elementary schools, in accordance with these objectives, the type of study is a modification research development (educational research and development). This is in accordance with the opinion of the Borg & Gall (1983) and the R & D model of Plomp stated that the main goal is the development of research to develop an effective product that can be used in schools. The products in question are not just limited to concrete objects, such as text books, the questions, but including the products and procedures such as models or learning strategies. Through education model through e-comic character expected of primary school students were able to understand what the character with good education, not boring and unpleasant.

B. Subject, Time and Place of Research

The subjects were elementary school students in the city of Semarang, which is represented by the elementary schools 01 and 02 Pedurungan tengah, the reason Elementary School Pedurungan tengah 01 and 02 are categorized as independent schools and a top 10 ranking in Semarang, while time the study started at the beginning of the academic year 2014-2015 for approximately 8 months

C. Development Methodology



Picture 1. Modification Borg and Gall Models dan Plomp

3. RESULTS ACHIEVED

I. Initial studies

In the development of this research has been adapted to the model development by Plomp (1997), which consists of 5 phases, namely (1) (1) initial research (preliminary investigation phase), (2) design (design phase), (3) realisaasi / construction (phase realization / construction), (4) testing, evaluation and revision, (phase test, evaluation & revition) and (5) implementation (implementation phase)., based on the first-year target of this study were (1) initial research, (2) design, (3) the realization / construction, (4) testing, evaluation, revision described as follows:

I. Design

In this design phase, the researcher makes the design-aided design model of educational e-comic character with PBL Model Modification and Kohlberg's Moral Theory based e-comic as follows:

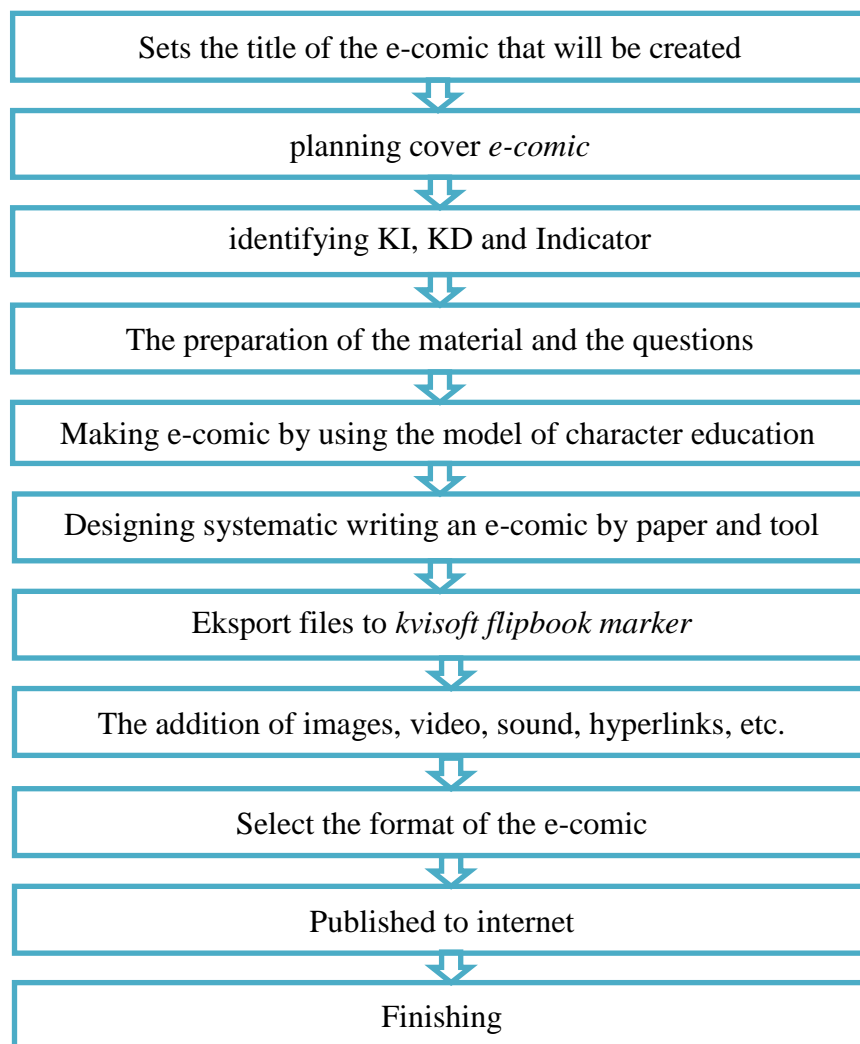
Table 1. Model Development Learning Character Education in Elementary

Kohlberg's Theory of Moral Development (1977) is based on Dewey and Piaget's	PBL Models (Problem Based Learning)	Modification Model PBL and Kohlberg's Moral Theory based e-comic
Stages "preconventional": Level 1: heteronomus morality; In this developmental level of the morality of a deed is determined by the characteristics and physical consequences.	Phase 1: Explaining orient students to the problems of learning objectives, the necessary logistics, motivate students actively involved in problem solving activities selected	Phase 1: Encourage students to be active in the learning based on good morality in any e-aided problem solving comic

Kohlberg's Theory of Moral Development (1977) is based on Dewey and Piaget's	PBL Models (Problem Based Learning)	Modification Model PBL and Kohlberg's Moral Theory based e-comic
Level 2: individual morality and reciprocity; Someone began to realize the goals and needs of others. Someone trying to fulfill their own interests by taking into account also the interests of others.	Phase 2: Organize students to help students learn to limit and organize learning tasks related to the problems faced by	Phase 2: Being able to adjust your personal interests and others in the face of problems in both mathematics and consciously assisted e-comic
Stages of "conventional": Level 3: mutual expectations between individual morality. Criteria for a good or bad deeds in this level is determined by shared norms and mutual trust relationship.	Phase 3: Guiding investigations of individuals and groups encourage students to collect appropriate information, conduct experiments, and looking for an explanation and breakdown	Phase 3: In the process of investigation is based on mutual trust between friends in the gathering of information in the implementation of experiments and problem solving aided e-comic.
Level 4: social system morality and conscience; A deed is considered good if it is approved by the authority and in accordance with the regulations that ensure order in the society.	Phase 4: Develop and present work helps students plan and menyiapkan, appropriate work such as reports, videos, and models, and help them to share tasks with friends.	Phase 4: Able to develop and present the mathematical works adapted to the social system in its environment and is able to share tasks with friends
Stages "posconventional": Level 5: transition rate; Someone has not reached the level of "posconventional" real. At this level right or wrong criteria subjective and personal, and do not have a clear principle in making a moral decision. Level 5: morality of social welfare and human rights. Criteria morality of the act is something that can guarantee individual rights and in accordance with the norms prevailing in a society.	Phase 5: Analyze and evaluate the problem-solving process helps students reflect on the investigation and the processes used during problem solving.	Phase 5: Being able to analyze and evaluate the mathematical problem solving process adapted to the norms prevailing in the community-assisted e-comic Phase 6: Being able to reflect on the results of its investigation with the performance of mathematical problem solving based on the moral principle that

		logical, consistent and universal-assisted e-comic
Kohlberg's Theory of Moral Development (1977) is based on Dewey and Piaget's	PBL Models (Problem Based Learning)	Modification Model PBL and Kohlberg's Moral Theory based e-comic
Level 6: morality which is based on moral principles are common; The size is right or wrong is determined by its own choice based on moral principles are logical, consistent, and universal.		

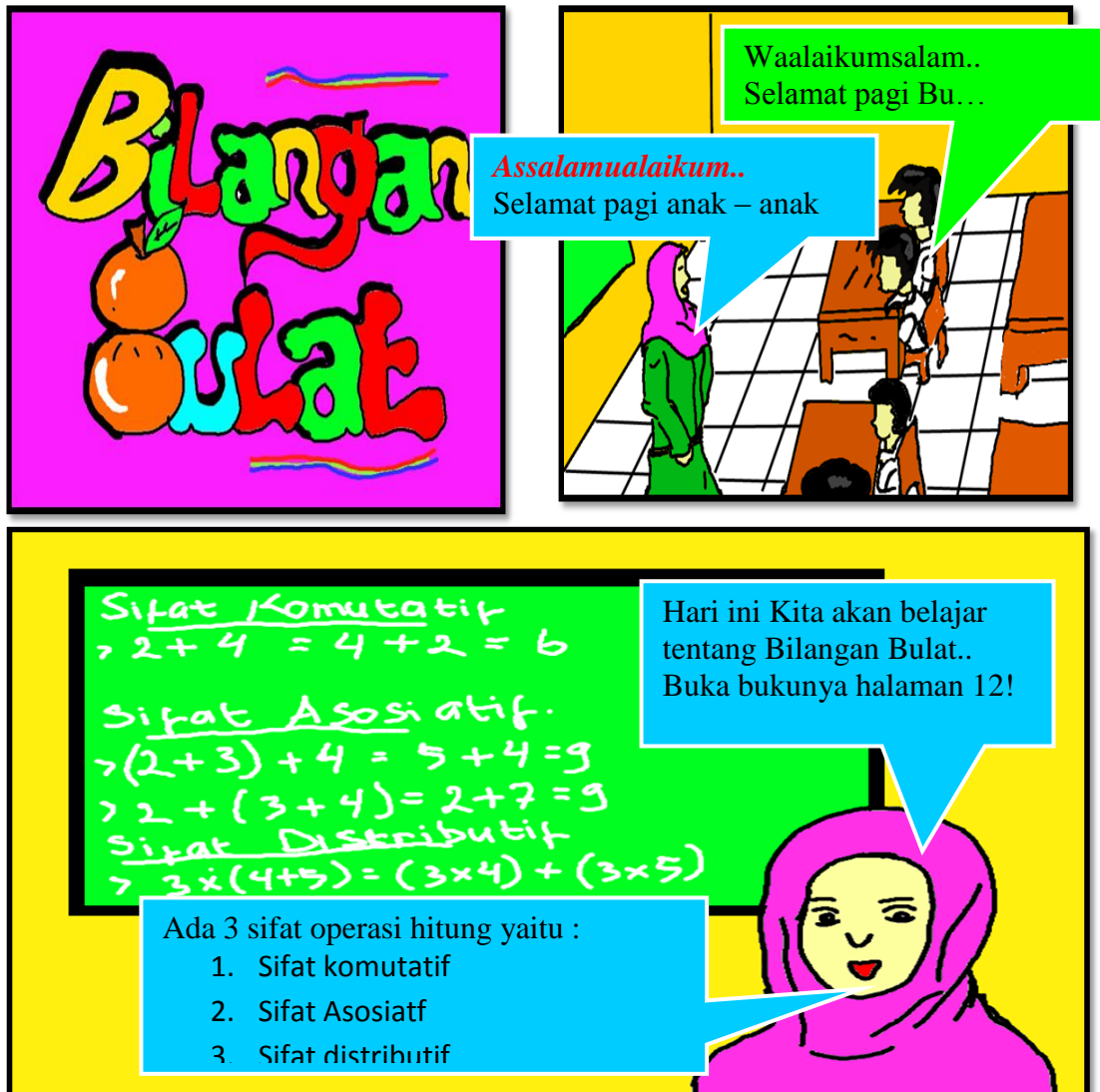
The steps of making e-comic as follow:



Picture 2. Steps of making *e-comic*

I. REALIZATION / CONSTRUCTION

In realization or kontruksinya made in accordance with the standard of Grade 6 students thinking that concrete and semi-concrete making it easier for students to understand the material and the desired character, eg e-comic material chapter 1 of the following integers:



Picture 3. Desain e-comic with character building models

II. TEST, EVALUATION, REVISION

Assessment matiklopedia design both online and offline *ecomimatsd.blogspot.com* address printed form as a book done by 1) Prof.Dr.Sunandar, M.Pd. validators of the material, whereas 2) Febrian Murti Dewanto, M.Kom. Media validators with the results of its evaluation as follows:

1. Expert Learning Materials

a. Presentation of Data

The following table presents the results of an expert assessment of exposure deskriptif learning materials for the development of these materials are submitted through the questionnaire method validation sheet instruments.

Table 2: Results Through Matter Expert assessment instrument validation sheet

No	aspect validity	Validator		Feasibility
		1	2	
1	Umum	90%	90%	90%
2	Substance Content	95%	85%	90%
3	Design of Learning	90%	90%	90%
average		90%	90%	90%

From the table it can be seen that 50% of the experts stated strongly agree, 50% agree, 0% undecided, disagree 0% and 0% expressed strongly disagree. The qualitative data collected from the input, suggestions, and comments of experts in the learning media open questions concerning e-comic elementary mathematics using character education model presented Table 3.

Table 3: overview of Data Assessment and Review Material Expert

Components	Suggestions / Comments
Coverage Matter Illustration image assessment assessment used	material for very little perbab Too many illustrations, but contains less material Examples and descriptions about everything, so there is no alternative answers

All the data from the review, assessment, and discussions with experts learning materials to be considered in the context of the revision of the e-comic refinement components elementary mathematics by using a model of character education conducted further research procedures that test the user's e-learners comic elementary mathematics by using model of character education.

2. Learning Media Expert

a. Presentation of Data

The following table presents the results of an expert assessment of exposure deskriptif learning media for the development of these materials are submitted through the questionnaire method validation sheet instruments.

Table 4 Results of Media Expert assessment through a validation sheet

No	aspect Validity	Validator		Feasibility
		1	2	
1	General	100%	100%	100%
2	Software Engineering	100%	98%	99%
3	Visual Communication	100%	96%	98%
4	Models of Learning	98%	100%	99%
Average		100%	98%	99%

From the table it can be seen that 96.75% strongly agreed, agreed 3.25%, and 0% undecided, disagree and strongly disagree. The qualitative data collected from the input, suggestions and comments of experts in the learning medium of open questions regarding the e-comic elementary mathematics using character education models presented in Table 5.

Table 5 Summary of Data Assessment and Review Media Expert

component	Suggestion/comment
size of the side bar menu	Size should be enlarged so that
Variations menu e-book	the font looks
Background of flip flash	Menu above removed
	Give a bright bacground

4. Test Limited in Schools

From the test results are limited in SDN 01 and SDN Pedurungan Central Middle Pedurungan 02 with given questionnaires and interviews obtained more than 90% of students are very interested in the products of e-comics both in print and online.



Picture 4. introduction e-comic in SDN Pedurungan Tengah 01



Picture 5. Introduction e-comic in SDN Pedurungan Tengah 02

4. CONCLUSION

- 1) has been generated product models and e-comic media both online and offline materials according to both experts and media experts
- 2) It has produced a prototype e-comic which will be ready in a limited test in elementary schools Pedurungan Tengah 01 and 02 Semarang

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